TITLE OF INVENTION: RADIATION-EMITTING SEMI-CONDUCTOR COMPONENT

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

# NOTICE OF ALLOWANCE AND FEE(S) DUE

26161 7590 09/11/2009

FISH & RICHARDSON PC P.O. BOX 1022

MINNEAPOLIS, MN 55440-1022

EXAMINER KALAM, ABUL

ART UNIT PAPER NUMBER

2814 DATE MAILED: 09/11/2009

 APPLICATION NO.
 FILING DATE
 FIRST NAMID INVENTOR
 ATTORNISY DOCKET NO.
 CONFRMATION NO.

 10/561/318
 0.5/15/2006
 Rainer Butendeich
 1246-141US1
 2803

 P20/03 (0.944US)
 P20/03 (0.944US)
 P20/03 (0.944US)
 P20/03 (0.944US)

 APPLN. TYPE
 SMALL ENTITY
 ISSUE FEE DUE
 PUBLICATION FEE DUE
 PREV. PAID ISSUE FEE
 TOTAL FEES) DUE
 DATE DUE

 nonprovisional
 NO
 \$1510
 \$300
 \$0
 \$1810
 12/11/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THE APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This appropriate. All further indicated unless correcte maintenance fee notificat	form should be used to correspondence including d below or directed off tions.	for transmitting the IS ig the Patent, advance nerwise in Block 1, by	SSUE FEE and PUBLICATI e orders and notification of r y (a) specifying a new corres	ON FEE (if require naintenance fees will pondence address; a	<li>d). Blocks 1 through 5 s l be mailed to the current nd/or (b) indicating a sep</li>	should be completed where correspondence address as arate "FEE ADDRESS" for
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PISH & RICHA P.O. BOX 1022 MINNEAPOLIS	7590 09/11 ARDSON PC 5, MN 55440-1022	/2009	I be	Certify	icate of Mailing or Trans	smission g deposited with the United st class mail in an envelope above, or being facsimile late indicated below.
						(Depositor's name)
						(Signature)
						(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR	Α	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,318 TITLE OF INVENTION	05/15/2006 RADIATION-EMITTI	ING SEMI-CONDUC	Rainer Butendeich TOR COMPONENT		12406-141US1 P2003,0404US	2803
APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE I	TEE TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	12/11/2009
EXAM	INER	ART UNIT	CLASS-SUBCLASS			
KALAM		2814	257-609000			
"Fee Address" indi PTO/SB/47; Rev 03-0 Number is required.  3. ASSIGNEE NAME A	ondence address (or Cha 3/122) attached. ication (or "Fee Address 2 or more recent) attach ND RESIDENCE DAT. ess an assignce is ident h in 37 CFR 3.11. Comp	inge of Correspondence "Indication form led. Use of a Custome A TO BE PRINTED O	e or agents OR, alternative (2) the name of a single	3 registered patent a rely, ely, e firm (having as a m gent) and the names meys or agents. If no printed.	nember a 2	locument has been filed for
Please check the appropri	iate assignee category or	categories (will not be	e printed on the patent):	Individual 🚨 Corp	oration or other private gr	oup entity Government
4a. The following fee(s) are submitted:    Issue Fee   Publication Fee (No small entity discount permitted)   Advance Order - # of Copies			A. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)   A check is enclosed.   Payment by reduit card. Form PTO-2038 is attached.   The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).			
	s SMALL ENTITY state	as. See 37 CFR 1.27.			ENTITY status. Sec 37 C	
NOTE: The Issue Fee and interest as shown by the r	d Publication Fee (if req records of the United Sta	uired) will not be acce tes Patent and Tradem	pted from anyone other than t ark Office.	he applicant; a registe	ered attorney or agent; or t	he assignee or other party in
Authorized Signature			Date			
Typed or printed name			Registration No.			
This collection of inform an application. Confident submitting the completed this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223	ation is required by 37 C itality is governed by 35 I application form to the ons for reducing this bu irginia 22313-1450. DO 13-1450.	CFR 1.311. The inform U.S.C. 122 and 37 CF USPTO. Time will v rden, should be sent to O NOT SEND FEES O	ation is required to obtain or r FR 1.14. This collection is est ary depending upon the indiv of the Chief Information Office OR COMPLETED FORMS TO	etain a benefit by the imated to take 12 min idual case. Any com r, U.S. Patent and Tr D THIS ADDRESS. 5	public which is to file (an nutes to complete, includi ments on the amount of ti ademark Office, U.S. Dep SEND TO: Commissioner	d by the USPTO to process) ag gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450,

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#### UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

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DATE MAILED: 09/11/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,318	05/15/2006	Rainer Butendeich	12406-141US1 P2003-0404US	2803
26161	7590 09/11/2009		EXAM	UNER
FISH & RICHARDSON PC			KALAM, ABUL	
P.O. BOX 1022			ART UNIT	PAPER NUMBER
MINNEAPOLIS, MN 55440-1022			2814	

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Notice of Allowability

Application No.	Applicant(s)			
10/561,318	BUTENDEICH ET AL.			
Examiner	Art Unit			
Abul Kalam	2814			

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable. PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative

- of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.
- This communication is responsive to the response filed on July 7, 2009.
- The allowed claim(s) is/are 12-14,17,20 and 22-25.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - b) ☐ Some\* c) ☐ None of the: a) 🔯 All
    - 1. A Certified copies of the priority documents have been received.
    - 2. Certified copies of the priority documents have been received in Application No. \_\_
    - 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) hereto or 2) to Paper No./Mail Date
  - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. 

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

- 1. | Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08).
- Paper No./Mail Date 4. T Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date
- 7. X Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. ☐ Other .

/Wael M Fahmy/

Supervisory Patent Examiner, Art Unit 2814

Application/Control Number: 10/561,318

Art Unit: 2814

#### Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 19, 2009, has been entered.

## EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

This application is in condition for allowance except for the presence of claims 5-7 directed to a species non-elected without traverse. Accordingly, claims 5-7 have been cancelled.

# Allowable Subject Matter

Claims 12-14, 17, 20 and 22-25 are allowed.

The following is an examiner's statement of reasons for allowance:

With respect to claims 12-14, 17, 20 and 22-25, the prior art of record neither anticipates nor renders obvious all the limitations of the base claims 20 and 22, including: wherein the active layer is doped with a second n-dopant different from the first n-dopant, which is doped in the n-doped confinement layer; and wherein the first

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Art Unit: 2814

waveguide layer, disposed between the active layer and the n-doped confinement layer, comprises a single layer that is doped with the second n-dopant and adjoins the active layer. Claims 12-14 and 17 depend from claim 20 and claims 23-25 depend from 22, and thus, these claims are also allowed for the same reasons.

## Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abul Kalam whose telephone number is 571-272-8346.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael M. Fahmy can be reached on 571-272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. K./ Examiner, Art Unit 2814 /Wael M Fahmy/ Supervisory Patent Examiner, Art Unit 2814